

III. REMARKS

The amendment to claim 17 and 28 correct obvious spelling errors.

Beginning from page 2 of the Office action, the Examiner states that the Shiono reference would disclose something "...to provide backlighting of a flat panel display...". On page 3 a similar statement is given. On page 4 the Examiner states that "Shiono et al is from the same filed (diffractive optical displays)", as well as "Backlighting is exactly what Shiono et al is doing". It is respectfully submitted that these statements do not have any real basis in Shiono.

The applicants recommend that the Examiner run a computerized "Search" function through the whole literal disclosure of Shiono, looking for character strings "backl" or "displ". This is what the applicants have done, without finding a single match. In the light of this observation that applicants find it very difficult to believe that Shiono would disclose anything about providing backlighting to displays.

On the other hand the applicants have found the following text passages in Shiono:

"One of conventional diffractive optical devices is a diffractive microlens" (column 1, lines 27-28)

"Light which is incident vertically on a bottom surface of the substrate 11 is collected or collimated above the substrate 11" (column 1, lines 34-36)

"The grating section 2 has a grating pattern as shown in FIG. 5 in order to collect the light 5 incident at an offset angle at point 3" (column 5, lines 57-59)

"The diffractive optical device 20...is used as a cylindrical off-axis lens for collecting light" (column 9, lines 2-4)

"The diffractive optical device 30 is an off-axis lens" (column 12, lines 13-14)

All of these passages consistently illustrate how Shiono is interested in making lenses that collect (i.e. concentrate) light. For the purpose of such collecting, Shiono says in column 5, lines 66-67, the following: "At [the focal] point 3, an optical data recording medium such as an optical disc may be placed." It is well known to everyone familiar with the technology of optical data recording that the aim there is to concentrate the light beam into as small a spot as possible, in order to enable packing the bits into the optical data recording medium as tightly as possible. Shiono's aim of producing (optimally point-formed, i.e. zero-sized) light spots is very far indeed from the applicant's claims aim of producing backlighting for a display.

If the Examiner is still of the opinion that "Backlighting is exactly what Shiono et al is doing" as in the latest Office Action, the applicants would respectfully ask the Examiner to cite an exact passage in Shiono where this teaching is given. Especially the applicants would like to see a reference to "backlighting" or "display" in Shiono, if such arguments are maintained.

Concerning "pixel-like" one may just refer to the commonly understood meaning of the word "pixel"; according to several leading dictionaries it means "the basic unit of the composition of an image on a television screen, a computer monitor, a similar display or an other wise digitally produced image". The applicants are not readily aware of any known pixelized image representations where each pixel would extend across the whole width of a display area. Therefore the applicants question referring to Shiono's arcs or straight lines across the diffractive microlens as something that would anticipate "pixel-like" structures.

All of the independent claims recite the backlighting feature. Further, claims 1, 17, 25 and 26 recite the pixel feature. Since neither feature is disclosed or suggested by Shiono, it is therefore submitted that the rejection of claims 1-10, 12 and 15-28 under 35 USC 102 on Shiono be withdrawn.

Turning now to JP 61-35585, already from its international classification certain conclusions might be drawn. H01S 3/18 (which later has been transferred to H01S 5/30) is a class for "semiconductor lasers; structure or shape of the active region; materials therefore". The reference publication JP 61-35585 discloses a way of "obtaining a semiconductor laser device which operates stably in the longitudinal single mode even during the modulation, by providing variations in the refractive index in the direction of propagation of light in a region on or near an active layer to which a photoelectric field extends" (English abstract, paragraph, "purpose"). There is admittedly a light guide layer 2 and certain diffractive structures on one surface thereof, but their purpose is not to couple light out of the light guide, but to stabilize the operation of the semiconductor

laser during modulation. The spatial changes in the dimensioning of the diffractive structure cause the average refractive index to be larger at the center of the cavity than near the ends of the cavity, which helps to obtain an oscillation mode at a wavelength which is shorter than the Bragg wavelength.

If one compares this to the independent claims, it is noted that there is almost nothing in common except the words "diffractive structure" and "lightguide". Nothing in JP 61-35585 suggests backlighting any displays as is presently claimed. Nothing in JP 61-35585 suggests coupling light out from the light guide using diffractive structures as is also claimed. It is submitted that that arrangements aiming at producing a single, heavily concentrated powerful laser ray are wildly different than arrangements aiming at producing a smooth, even backlight to a two-dimensional display as presently claimed.

It is assumed that the Examiner's occasional references to a publication JP 61-25585 are an error and JP 61-35585 is meant all the time.

It is therefore submitted that the rejection of claims 1-10, 12 and 15-29 under 35 USC 102 on JP 61-35585 should be withdrawn.

The details recited in claims 11 and 13-14 provide uniform brightness (see p. 5, lines 30-33; p. 11, lines 1-6). Thus they do provide an advantage. Hence the rejection of these claims under 35 USC 103 on Shiono or JP 61-35585 should be withdrawn.

For all of the foregoing reasons, it is respectfully submitted that all of the claims now present in the application are clearly novel and patentable over the prior art of record, and are in

proper form for allowance. Accordingly, favorable reconsideration and allowance is respectfully requested. Should any unresolved issues remain, the Examiner is invited to call Applicants' attorney at the telephone number indicated below.

The Commissioner is hereby authorized to charge payment for any fees associated with this communication or credit any over payment to Deposit Account No. 16-1350.

Respectfully submitted,


Henry I. Steckler

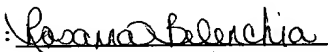
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